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AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A game system which performs perspective projection conversion of vertex coordinates of a plurality of polygons forming three-dimensional objects located in an imaginary three-dimensional space based on perspective conversion matrix, and forms display images of the three-dimensional objects on a projection plane of a viewpoint coordinate system, comprising:

a storage unit for storing at least data of the vertex coordinates of the plurality of polygons and data of the perspective conversion matrices;

a coordinate conversion unit for reading out the data of the vertex coordinates of the plurality of polygons constituting a single three-dimensional object and the data of a plurality of perspective conversion matrices different from each other from the storage unit, and for performing perspective projection conversion of each of the vertex coordinates of the plurality of polygons by using each of the plurality of perspective conversion matrices whereby a plurality of the conversion matrices are used at the same time to thereby produce a plurality of sets of converted vertex coordinates of the plurality of polygons, each set of the plurality of sets constituting a single three-dimensional object; and

an image processor for forming display images of all of the three-dimensional objects —,which correspond to the plurality of polygons after the perspective

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~~projection conversion,~~ on the projection plane of the viewpoint coordinate system at

the same time based on the <u>plurality of sets of converted</u> vertex coordinates ~~of the~~

~~plurality of polygons after the perspective projection conversion,~~

wherein the coordinate conversion unit comprises:

a unit for fixing the data of the vertex coordinates of the plurality of polygons

read out;

a unit for newly reading out data of a plurality of perspective conversion

matrices different from each other from the storage unit instead of the data of the

plurality of perspective conversion matrices already read out; and

a unit for performing the perspective projection conversion of each fixed data

of the vertex coordinates of the plurality of polygons by using each of the plurality

of the perspective conversion matrices newly read out.

2.   (Canceled)

3.   (Previously Presented)   A game system according to claim 1,

wherein the newly reading unit repeatedly reads out the data of the plurality of

perspective conversion matrices.

4.   (Currently Amended) A game system which performs perspective

projection conversion of vertex coordinates of a plurality of polygons forming three-

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dimensional objects located in an imaginary three-dimensional space based on perspective conversion matrix, and forms a display image of the three-dimensional objects on a projection plane of a viewpoint coordinate system, comprising:

a storage unit for storing at least data of the vertex coordinates of the plurality of polygons and data of the perspective conversion matrices;

a transfer unit for transferring the data of the vertex coordinates of the plurality of polygons constituting a single three-dimensional object and the data of a plurality of perspective conversion matrices different from each other from the storage unit;

a coordinate conversion unit for receiving the transferred data and for performing perspective projection conversion of each of the vertex coordinates of the plurality of polygons by using each of the plurality of perspective conversion matrices at the same time to thereby produce a plurality of sets of converted vertex coordinates of the plurality of polygons, each set of the plurality of sets constituting a single three-dimensional object; and

an image processor for forming display images of all of the three-dimensional objects , which correspond to the plurality of polygons after the perspective projection conversion, on the projection plane of the viewpoint coordinate system at the same time based on the plurality of sets of converted vertex coordinates of the plurality of polygons after the perspective projection conversion,

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wherein the transfer unit comprises a unit for newly transferring only data of

the plurality of perspective conversion matrices different from each other after

transferring the data of the vertex coordinates of the plurality of polygons and data

of a plurality of perspective conversion matrices different from each other, and

wherein the coordinate conversion unit comprises a unit for fixing data of the

vertex coordinates of the plurality of polygons transferred, and a unit for performing

perspective projection conversion of each fixed data of the vertex coordinates of the

plurality of polygons by using each of the plurality of perspective conversion

matrices newly transferred.

5. (Canceled)

6. (Previously Presented) A game system according to claim 4,

wherein the newly reading unit repeatedly reads out the data of the plurality of

perspective conversion matrices.

7. (Currently Amended) A display image forming method performed by

a game system which performs perspective projection conversion of vertex

coordinates of a plurality of polygons forming three-dimensional objects located in

an imaginary three-dimensional space based on perspective conversion matrix, and

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forms a display image of the three-dimensional objects on a projection plane of a

viewpoint coordinate system, the method comprising the steps of:

storing at least data of the vertex coordinates of the plurality of polygons and

data of the perspective conversion matrices;

reading out the data of the vertex coordinates of the plurality of polygons

constituting a single three-dimensional object and data of a plurality of perspective

conversion matrices different from each other from the storage unit, and performing

perspective projection conversion of each of the vertex coordinates of the plurality

of polygons by using each of the plurality of perspective conversion matrices at the

same time to thereby produce a plurality of sets of converted vertex coordinates of

the plurality of polygons, each set of the plurality of sets constituting a single three-

dimensional object; and

forming display images of all of the three-dimensional objects ~which

correspond to the plurality of polygons after the perspective projection conversion,

on the projection plane of the viewpoint coordinate system at the same time based on

the plurality of sets of converted vertex coordinates of the plurality of polygons after

the perspective projection conversion,

wherein the step of performing the perspective conversion comprises the steps

of:

fixing the data of the vertex coordinates of the plurality of polygons read out;

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newly reading out data of a plurality of perspective conversion matrices different from each other from the storage unit instead of the data of the plurality of perspective conversion matrices already read out; and

performing the perspective projection conversion of each fixed data of the vertex coordinates of the plurality of polygons by using each of the plurality of the perspective conversion matrices newly read out.

8.   (Currently Amended) A display image forming method performed by a game system which performs perspective projection conversion of vertex coordinates of a plurality of polygons forming three-dimensional objects located in an imaginary three-dimensional space based on perspective conversion matrix, and forms a display image of the three-dimensional objects on a projection plane of a viewpoint coordinate system, the method comprising the steps of:

storing at least data of the vertex coordinates of the plurality of polygons constituting a single three-dimensional object and data of the perspective conversion matrix;

transferring the data of the vertex coordinates of the plurality of polygons and data of a plurality of perspective conversion matrices different from each other from the storage unit;

receiving the transferred data and performing perspective projection conversion of the vertex coordinates of the plurality of polygons [[for]] by using each

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of the plurality of perspective conversion matrices at the same time to thereby

produce a plurality of sets of converted vertex coordinates of the plurality of

polygons, each set of the plurality of sets constituting a single three-dimensional

object; and

forming display images of all of the three-dimensional objects , which

correspond to the plurality of polygons after the perspective projection conversion,

on the projection plane of the viewpoint coordinate system at the same time based on

the plurality of sets of converted vertex coordinates of the plurality of polygons after

the perspective projection conversion,

wherein the step of transferring comprises a step of newly transferring only

data of the plurality of perspective conversion matrices different from each other after

transferring the data of the vertex coordinates of the plurality of polygons and data

of a plurality of perspective conversion matrices different from each other, and

wherein the step of performing perspective projection conversion comprises

the steps of fixing data of the vertex coordinates of the plurality of polygons

transferred, and performing perspective projection conversion of each fixed data of

the vertex coordinates of the plurality of polygons by using each of the plurality of

perspective conversion matrices newly transferred.

9.   (Currently Amended) A computer-readable storage medium carrying

a game program executed in a game system which performs perspective projection

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conversion of vertex coordinates of a plurality of polygons forming three-dimensional objects located in an imaginary three-dimensional space based on perspective conversion matrix, and forms a display image of the three-dimensional objects on a projection plane of a viewpoint coordinate system, the game program controls a computer in the game system to function as:

a storage unit for storing at least data of the vertex coordinates of the plurality of polygons and data of the perspective conversion matrices;

a coordinate conversion unit for reading out the data of the vertex coordinates of the plurality of polygons constituting a single three-dimensional object and data of a plurality of perspective conversion matrices different from each other from the storage unit, and for performing perspective projection conversion of each of the vertex coordinates of the plurality of polygons by using each of the plurality of perspective conversion matrices at the same time to thereby produce a plurality of sets of converted vertex coordinates of the plurality of polygons, each set of the plurality of sets constituting a single three-dimensional object; and

an image processor for forming display images of all of the three-dimensional objects , which correspond to the plurality of polygons after the perspective projection conversion; on the projection plane of the viewpoint coordinate system at the same time based on the plurality of sets of converted vertex coordinates of the plurality of polygons after the perspective projection conversion, wherein the coordinate conversion unit comprises:

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a unit for fixing the data of the vertex coordinates of the plurality of polygons read out;

a unit for newly reading out data of a plurality of perspective conversion matrices different from each other from the storage unit instead of the data of the plurality of perspective conversion matrices already read out; and

a unit for performing the perspective projection conversion of each fixed data of the vertex coordinates of the plurality of polygons by using each of the plurality of the perspective conversion matrices newly read out.

10. (Canceled)

11. (Previously Presented) A medium according to claim 9, wherein the newly reading unit repeatedly reads out the data of the plurality of perspective conversion matrices.

12. (Currently Amended) A computer-readable storage medium carrying a game program performed by a game system which performs perspective projection conversion of vertex coordinates of a plurality of polygons forming three-dimensional objects located in an imaginary three-dimensional space based on perspective conversion matrix, and forms a display image of the three-dimensional

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objects on a projection plane of a viewpoint coordinate system, the game program controls a computer in the game system to function as:

a storage unit for storing at least data of the vertex coordinates of the plurality of polygons and data of the perspective conversion matrices;

a transfer unit for transferring the data of the vertex coordinates of the plurality of polygons constituting a single three-dimensional object and data of a plurality of perspective conversion matrices different from each other from the storage unit;

a coordinate conversion unit for receiving the transferred data and for performing perspective projection conversion of the vertex coordinates of the plurality of polygons [[for]] by using each of the plurality of perspective conversion matrices at the same time to thereby produce a plurality of sets of converted vertex coordinates of the plurality of polygons, each set of the plurality of sets constituting a single three-dimensional object; and

an image processor for forming display images of all of the three-dimensional objects , which correspond to the plurality of polygons after the perspective projection conversion, on the projection plane of the viewpoint coordinate system at the same time based on the plurality of sets of converted vertex coordinates of the plurality of polygons after the perspective projection conversion,

wherein the transfer unit comprises a unit for newly transferring only data of the plurality of perspective conversion matrices different from each other after

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transferring the data of the vertex coordinates of the plurality of polygons and data of a plurality of perspective conversion matrices different from each other, and

wherein the coordinate conversion unit comprises a unit for fixing data of the vertex coordinates of the plurality of polygons transferred; and a unit for performing perspective projection conversion of each fixed data of the vertex coordinates of the plurality of polygons fixed by using each of the plurality of perspective conversion matrices newly transferred.

13. (Canceled)

14. (Previously Presented) A medium according to claim 12, wherein the newly reading unit repeatedly reads out the data of the plurality of perspective conversion matrices.

15. (Previously Presented) A game system according to claim 1, wherein the coordinate conversion unit performs the perspective projection conversion to produce a plurality of images of three-dimensional objects by using the same set of the vertex coordinates of the plurality of polygons and the different perspective conversion matrices.

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16.   (Previously Presented)   A game system according to claim 4, wherein the coordinate conversion unit performs the perspective projection conversion to produce a plurality of images of three-dimensional objects by using the same set of the vertex coordinates of the plurality of polygons and the different perspective conversion matrices.

17.   (Previously Presented)   A display image forming method according to claim 7, wherein the perspective projection conversion is performed to produce a plurality of images of three-dimensional objects by using the same set of the vertex coordinates of the plurality of polygons and the different perspective conversion matrices.

18.   (Previously Presented)   A display image forming method according to claim 8, wherein the perspective projection conversion is performed to produce a plurality of images of three-dimensional objects by using the same set of the vertex coordinates of the plurality of polygons and the different perspective conversion matrices.

19.   (Previously Presented)   A storage medium according to claim 9, wherein the coordinate conversion unit performs the perspective projection conversion to produce a plurality of images of three-dimensional objects by using the

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same set of the vertex coordinates or the plurality of polygons and the different

perspective conversion matrices.

20. (Previously Presented) A storage medium according to claim

12, wherein the coordinate conversion unit performs the perspective projection

conversion to produce a plurality of images of three-dimensional objects by using the

same set of the vertex coordinates of the plurality of polygons and the different

perspective conversion matrices.

21. (Previously Presented) A game system according to claim 1,

wherein by performing perspective projection conversion of each of the vertex

coordinates of the plurality of polygons by using each of the plurality of perspective

conversion matrices, a plurality of the conversion matrices are used at the same time.

22. (Previously Presented) A game system according to claim 4,

wherein by performing perspective projection conversion of each of the vertex

coordinates of the plurality of polygons by using each of the plurality of perspective

conversion matrices, a plurality of the conversion matrices are used at the same time.

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